UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,472	02/27/2004	Hideo Ohata	16869S-107900US	8527

			EXAMINER
20350 7590 12/29/2005			FERNANDES, CHERYL M

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA   94111-3834

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/789,472	OHATA ET AL.
	Examiner	Art Unit	
	Cheryl M. Fernandes	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _28 November 2005_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-18_ is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-18_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _27 February 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☒ All   b)☐ Some * c)☐ None of:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _2/27/04, 11/28/05_.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2.   The abstract of the disclosure is objected to because of the terminology 'is disclosed'. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-18 recite the following limitations:

-   "the frequency", "the range of collecting", "the conditions set", "the

    performance data collection", in the last paragraph of claim 1;

- "the timing", "the time interval", "the requirement of performance collection", and "the performance data collected in advance", in para. 2 of claims 2 and 16;

- "the performance data" in para. 3 of claim 2;

- "the requirement", "the time interval of performance data collection", in para. 4 of claim 2;

- "the frequency of performance data collection", in para. 5 of claim 2;

- "the value of a specific performance item" in claims 3 and 6;

- "the change in the value of said performance item" in para. 2 of claim 3;

- "the value of a specific item", in para. 3 of claim 4;

- "the value of a specific performance item obtained" and "the change in the value of a specific performance item obtained" in para. 2 of claim 5;

- "the sign" in claim 6;

- "said collected element selecting step", in para. 2 of claims 7-11;

- "the collected elements stored in advance", in claims 7 and 16;

- "the data", "the performance interdependency relation", in claims 7, 8, and 9;

- "the motive", in claims 8-11;

- "the path", in claims 8-11;

- "the upstream side", in claims 8, 10, and 11;

- "the downstream side", in claims 9-11;

- "said/the interdependency relation", "the performance interdependency relation", in claims 10 and 11;

- "the collected elements" in the last para. of claims 10 and 11;

- "the time interval", "the requirement of performance collection", "the hitherto

   uncollected values" in claims 12 and 14;

- "the time interval", "the requirement of performance collection", "the values of

   a specific performance item of the collected element selected" in claims 13

   and 15;

- "the user", "the elements", in para. 2 and 3 of claim 16;

- "the information", "the performance interdependency relation", "the range of

   performance data collection", in para. 3 of claim 16;

- "the frequency of performance data collection", in claim 16;

- "the performance data", in the preamble of claims 17 and 18;

- "the time interval", "the information", "the user", "the data", "the performance

   interdependency relation", "the resources stored in advance", "said read

   information", "said received performance data collection range", "said

   received time interval", in claim 17;

- "the information", "the range", "the time interval", "the data", "the performance

   interdependency relation", "the resources stored in advance", "the user", in

   claim 18.

There is insufficient antecedent basis for these limitations in the claims.

Referring to claims 2 and 16, the claims recite the limitation "..based on the

performance data collected in advance..". However, it is unclear as to which of the

performance data is being referred to – the performance data for a selected one of said

computer system, said external storage, or said network device, or the performance

data for the software operating thereon.

Referring to claim 2, the claim recites the limitation "selecting an updated

element". However, there is no prior indication in the claim of any element being

updated.

Referring to claim 2, the claim recites the limitation "selecting an updated

element .... from a plurality of elements for which the performance data is to be

collected". However, it is unclear as to whether or not the performance data to be

collected is different from the performance data collected in advance.

Referring to claim 2, the claim recites the limitation "said selected elements",

para. 4 of the claim, however, it is unclear as to whether or not the claim is meant to

refer to a single selected element, as indicated by 'selecting an updated element' in

para. 3 of the claim.

Referring to claims 3, 4, 5, 6, and 7, the claims recite the limitation "a specific

collected element". However, there is no prior indication in the claims or those that they

depend from of any element being collected.

Due to the 35 USC § 112 rejections, the claims have been treated on their merits

as best understood by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a
foreign country or in public use or on sale in this country, more than one year
prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under
section 122(b), by another filed in the United States before the invention by the
applicant for patent or (2) a patent granted on an application for patent by
another filed in the United States before the invention by the applicant for patent,
except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application
filed in the United States only if the international application designated the
United States and was published under Article 21(2) of such treaty in the English
language.

4.   Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent

Number 5,067,099 issued to McCown et al (hereafter McCown).

Referring to claim 1, McCown discloses a method of collecting the performance

data for a storage network including at least a computer, at least a storage, and at least

a network device for communication of input/output data between said computer and

said storage (Abstract), comprising the steps of:

- collecting the performance data from at least a selected one of said computer,

  said storage or said network device (operational data acquired from a computer

  system, Abstract; col. 3, lines 33-39; col. 4, lines 1-14; col. 21, lines 31-34, Fig.

  12, element 520); and

- changing a selected one of the frequency or the range of collecting the

  performance data based on said collected performance data and the conditions

  set for the performance data collection (performance parameter range

  modification, col. 4, lines 1-44; col. 22, line 38 – col. 23, line 16, Fig. 11, elements

  500-508).

5.   Claims 2-6, 8-12, and 14 are rejected under 35 U.S.C. 102(e) as being

anticipated by US Patent Number 6,609,083 issued to Enck et al (hereafter Enck).

      Referring to claim 2, Enck discloses in a storage network system including at

least one computer system, at least one external storage and at least one network

device for communication of input/output data between said computer and said storage,

a method of collecting the performance data for a selected one of said computer

system, said external storage or said network device and the performance data for

software operating thereon (computer system performance collection, Abstract; col. 2,

lines 11-16) comprising the steps of:

- determining the timing of updating a selected one of the time interval of

  performance data collection (determine whether to increase frequency time

  interval, col. 2, line 50 – col. 3, line 6), based on the performance data collected

  in advance (data stored for performance analysis, col. 5, lines 51-58);

- selecting an updated element of which selected one of the time interval of

  performance data collection is to be changed, from a plurality of elements for

  which the performance data is to be collected (system health operating

  conditions e.g. CPU condition, disk condition, memory condition, col. 4, lines 4-

  19; CPU bottleneck, disk bottleneck, and memory bottleneck system conditions,

  col. 4, line 35 – col. 5, line 32; see claims 4-5 of Enck);

- determining a selected one of the time interval of performance data collection for

  said selected elements (Fig. 1, elements 122 and 124; Fig. 2, element 230; 'five

  minute interval', col. 4, line 35 – col. 5, line 32); and

- updating a selected one of the time interval or the frequency of performance data

  collection while at the same time updating the frequency of performance data

  collection in accordance with said timing (col. 4, lines 40-54; Fig. 1, element 124;

  Fig. 2, element 240; col. 3, lines 1-26; col. 4, lines 19-29; col. 6, lines 7-13).

Referring to claim 3, Enck discloses that the timing determined in said timing

determining step is selected one of a time point when the value of a specific

performance item obtained for a specific collected element exceeds or decreases below

a predetermined reference value (col. 4, lines 40-47).

Referring to claims 4 and 5, Enck discloses that the step of determining said timing includes the steps of: determining the difference between the value of a specific item obtained for a specific collected element and a predetermined reference value and setting said timing as a time point when said difference exceeds or decreases below a reference value (col. 4, lines 40-54).

Referring to claim 6, Enck discloses that said timing determining step includes the step of setting said timing as selected one of a time point when the value of a specific performance item obtained for a specific collected element ceases to be excessively large or small and a time point when the sign that said value becomes excessively large or small disappears (col. 4, line 40- col. 5, line 20).

Referring to claim 8, Enck discloses that said collected element selecting step includes the steps of:

setting a collected element constituting the motive of determining said timing in said timing determining step as an origin, and selecting said collected element on the path on the upstream side imposing a performance load on said collected element constituting said origin, based on the data defining the performance interdependency relation between the collected elements and said collected element constituting said origin (time frequency increased when threshold policies are violated, col. 3, lines 1-26).

Referring to claim 9, Enck discloses that said collected element selecting step includes the steps of:

setting a collected element constituting the motive of determining said timing in said timing determining step as an origin, and selecting said collected element on the path on the downstream side imposed with a performance load by said collected element constituting said origin, based on the data defining the performance interdependency relation between the collected elements and said collected element constituting said origin (time frequency decreased when threshold policies are not violated, col. 3, lines 1-26).

Referring to claims 10 and 11, Enck discloses said collected element selecting step includes the steps of:

setting a collected element constituting the motive of determining said timing in said timing determining step as an origin, and selecting a collected element on the path tracing the interdependency relation on the upstream side imposing a performance load, a collected element on the path tracing the interdependency relation on the downstream side imposed with a performance load and a collected element on the path tracing the interdependency relation on the upstream and downstream sides with each of said collected elements on said path as a new origin, by use of the performance interdependency relation between the collected elements (col. 3, lines 1-26).

Referring to claim 12, Enck discloses collecting the hitherto uncollected values of a specific performance item of the collected element selected in said collected element selecting step (col. 5, lines 20-32).

Referring to claim 14, Enck discloses ceasing to collect the hitherto collected values of a specific performance item of the collected element selected in said collected element selecting step (col. 7, lines 25-30).

6.   Claims 2, 7, 13, and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Number 6,405,327 issued to Sipple et al (hereafter Sipple).

Referring to claim 2, Sipple discloses in a storage network system including at least one computer system, at least one external storage and at least one network device for communication of input/output data between said computer and said storage, a method of collecting the performance data for a selected one of said computer system, said external storage or said network device and the performance data for software operating thereon (system performance, Abstract; Field of Invention) comprising the steps of:

- determining the timing of updating a selected one of the time interval of performance data collection, based on the performance data collected in advance (sampling of key performance factors taken from stored performance data collection sites, Abstract; col. 3, lines 10-15);

- selecting an updated element of which selected one of the time interval of

   performance data collection is to be changed, from a plurality of elements for

   which the performance data is to be collected (performance data collection sites,

   Fig. 2, elements 1102, 1106, and 1110; col. 5, line 65 – col. 6, line 1);

- determining a selected one of the time interval of performance data collection for

   said selected elements (user selectable time period between data point

   collections, col. 6, lines 1-7); and

- updating a selected one of the time interval or the frequency of performance data

   collection while at the same time updating the frequency of performance data

   collection in accordance with said timing (col. 6, lines 1-16).

Referring to claim 16, Sipple discloses in a storage network system including at

least one computer system, at least one external storage and at least one network

device for communication of input/output data between said computer and said storage,

a method of collecting the performance data for a selected one of said computer

system, said external storage, or said network device and the performance data for

software operating thereon, said external storage and said network system (system

performance, Abstract; Field of Invention), comprising the steps of:

- determining the timing of changing a selected one of the time interval of

    performance data collection based on the performance data collected in advance

    (sampling of key performance factors taken from stored performance data

    collection sites, Abstract; col. 3, lines 10-15) and an instruction from the user

    (Abstract, user selectable period of time; col. 3, lines 13-15);

- selecting, from the elements for which the performance data is to be collected, an

    element of which a selected one of the time interval of performance data

    collection is to be changed (performance data collection sites, Fig. 2, elements

    1102, 1106, and 1110; col. 5, line 65 – col. 6, line 1), based on the information

    defining the performance interdependency relation between the collected

    elements stored in advance (performance threshold levels, col. 3, lines 15-25;

    col. 6, lines 11-30; col. 9, lines 27-35) and the information on the range of

    performance data collection designated by the user (user assignable parameters,

    col. 6, lines 5-16);

- determining a selected one of the time interval of performance data collection for

    said selected element (user selectable time period between data point

    collections, col. 6, lines 1-7); and

- updating the frequency of performance data collection in accordance with said

    selected one of the time interval of performance data collection and said timing

    (col. 6, lines 1-16).

Referring to claim 17, Sipple discloses a program for collecting the performance data (Abstract, see claim 14 of Sipple), comprising the steps of:

-   receiving the information including a resource for which the performance data designated by the user from a first program is to be collected (sampling of key performance factors collected, Abstract; col. 3, lines 10-15), a metrics constituting an item of performance data collection of said resource (key performance factors, Abstract; col. 3, lines 10-15), and the range (user assignable parameters, col. 6, lines 5-16) and the time interval of performance data collection in a storage network including said resource (user selectable period of time; col. 3, lines 13-15; col. 6, lines 1-7);

-   reading from said storage the data defining the performance interdependency relation between the resources stored in advance (performance threshold levels, col. 3, lines 15-25; col. 6, lines 11-30; col. 9, lines 27-35);

-   selecting, from the resources included in said storage network, a resource for which the time interval of performance data collection is to be updated (performance data collection sites, Fig. 2, elements 1102, 1106, and 1110; col. 5, line 65 – col. 6, line 1), based on said read information defining the performance interdependency relation between the resources (performance threshold levels, col. 3, lines 15-25; col. 6, lines 11-30; col. 9, lines 27-35) and said received performance data collection range (col. 6, lines 5-16);

- determining said time interval of performance data collection for said selected

   resource based on said received time interval of performance data collection

   (user selectable time period between data point collections, col. 6, lines 1-7); and

- transmitting to a second program a performance data collection instruction from

   said resource selected in accordance with said determined time interval of

   performance data collection (analysis and notification of performance results, col.

   6, lines 11-37).

Referring to claim 18, the limitations of the claim repeat the respective limitations

of claim 17 in the form of a system (Abstract), and are hereby rejected for the same

reasons as claim 17.

Referring to claim 7, Sipple discloses selecting said collected element based on

the data defining the performance interdependency relation between the collected

elements stored in advance (performance threshold levels, col. 3, lines 15-25; col. 6,

lines 11-30; col. 9, lines 27-35).

Referring to claim 13, Sipple discloses more frequently collecting the values of a

specific performance item of the collected element selected in said collected element

selecting step (monitoring run every 15 minutes, col. 5, line 65 – col. 6, line 1).

Referring to claim 15, Sipple discloses less frequently collecting the values of a

specific performance item of the collected element selected in said collected element

selecting step (monitoring run 12 times an hour, col. 3, lines 58-62).

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The following patents or publications are cited with respect to data network performance

information monitoring and dynamically improving the performance of a network:

US Patent 6,975,963 by Hamilton et al;

US Patent 5,742,819 by Caccavale.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cheryl M Fernandes who can be reached on (571) 272-

4018. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Safet Metjahic can be reached on (571) 272-4023.   The fax phone number

for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

December 23, 2005
CMF

UYEN LE
PRIMARY EXAMINER